

Appln No. 10/675,227

Amdt date July 25, 2005

Reply to Office action of March 24, 2005

REMARKS/ARGUMENTS

In the Office action dated March 24, 2005, claims 1 - 16 were rejected under 35 U.S.C. § 102. By this Amendment, Applicant has amended claim 1, 2, 5, 7 and 8 and canceled claim 4. Reconsideration and reexamination are hereby requested for Claims 1 - 3 and 5 - 16 that are pending in this application.

The Examiner rejected claims 1 - 16 under 35 U.S.C. § 102(b) as being anticipated by Key, U.S. Patent No. 4,183,610. Claims 1, 2, 11 and 12 are independent claims.

Claims 1 and 2 relate to a press-fit terminal having a pressure retaining part and an introducing part and an aperture extending in the axial direction of the terminal. The Examiner states that Key discloses "a pressure retaining part; and an introducing part 12, wherein the pressure retaining part generates an elastic force which becomes a holding force when the pressure retaining part is press-fitted into the through-hole 14, 15, and the introducing part 12 generates an elastic force, the intensity of which is lower than that of the elastic force generated by the pressure retaining part."

However, in Key the "shroud 12 slides over the contact pins in the direction A and is retained by an interference fit with the contact pins 10 and 11" as described in column 3, lines 37-39. The shroud 12 thus differs from "an introducing part" provided to the press-fit terminal as set forth in claim 1 or claim 2. For example, Key does not disclose "the aperture generates an elastic force in the pressure retaining part and the introducing part when the press-fit terminal is press-

Appln No. 10/675,227

Amdt date July 25, 2005

Reply to Office action of March 24, 2005

fitted." Moreover, as best understood, Key says nothing regarding intensity of an elastic force as claimed.

In view of the above, Applicant submits that Key does not teach or suggest the limitations of claim 1 or claim 2. The press-fit section 18 provided in a contact portion 20 of an electrical connection apparatus described in Key differs from the pressure retaining part and the introducing part of the press-fit terminal of claim 1 or claim 2. Accordingly, independent claims 1 and 2 are patentable over Key.

Claims 3 and 5 - 10 that depend on claim 1 also are patentable over the cited reference for the reasons set forth above. In addition, these dependent claims are patentable over the reference for the additional limitations that these claims contain.

Claims 11 and 12 relate to "a wiring board made of a sheet-like base material, having a through-hole into which a press-fit terminal is press-fitted so that it can be held, wherein an elastic material is contained in the resin for combining the sheet-like base material." The Examiner states that Key discloses this limitation at column 3, line 25 to column 5, line 63 with particular reference to "wiring board 16," "through-hole 14, 15" and "press-fit terminal 18."

The cited portion of Key, however, only discusses the construction of the terminal 10, 11. Applicant has found no reference to either materials used in or any other construction aspects of a wiring board. Here, the only reference to an elastic material refers to the characteristics of the terminal

Appln No. 10/675,227

Amdt date July 25, 2005

Reply to Office action of March 24, 2005

10, 11, not to a printed circuit board. See, for example, column 4, lines 19 - 37:

The press-fit section 18 of each pin 10 and 11 comprises, in cross-section, as seen in FIG. 4, an open, curved or arcuate segment 28, generally resembling a "C"-shape, having smooth, continuous inner and outer curved surfaces. The dimensioning of the "C"-shaped cross-section 28 and the ductibility-elasticity of the material from which it is formed are important in achieving the desirable operating capabilities of this invention. More particularly, in accordance with this invention, the configuration, relative dimensions and ductibility-elasticity of the "C"-shaped design are selected to provide a press-fit section 18 which, when inserted into holes within a wide range of sizes, will be radially compressed and deformed to operate within the plastic deformation range of the material to provide predetermined, substantially uniform, retention forces and to provide positive, internal contact over a large surface area without excessive damage to the hole or to conductive material which may line the hole.

See also, column 5, lines 2 - 8:

The retention forces developed upon insertion of the "C"-shaped cross-section 28 into such holes will, because of the plastic deformation of the "C"-shaped cross-section, be substantially uniform. Thus, if the pin is inserted into holes having different diameters, e.g., a maximum hole and

Appln No. 10/675,227

Amdt date July 25, 2005

Reply to Office action of March 24, 2005

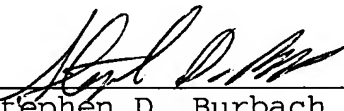
a minimum hole, the "C"-shaped cross-section is deflected beyond its elastic range in each case and a nearly equal amount of force will be exerted by the "C"-shaped cross-section against the portions of the board.

In view of the above, Applicant submits that Key does not teach or suggest the limitations of either claim 11 or claim 12. Claims 13 - 16 that depend on claim 11 also are patentable over the cited reference for the reasons set forth above. In addition, these dependent claims are patentable over the reference for the additional limitations that these claims contain.

CONCLUSION

For the foregoing reasons Applicant submits that the claims are patentable over the references of record. Reexamination and reconsideration are respectfully requested.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Stephen D. Burbach
Reg. No. 40,285
626/795-9900

SDB/vsj
VSJ PAS634751.1-* -07/25/05 3:58 PM